58. The method of claim 57 wherein the function that provides a unique output for each set of inputs comprises at least one of an encryption function, a hash function or a table look-up operation.

59. The method of claim 57 wherein the inputs to the function that provides a unique output for each set of inputs comprise one or more of a unique identifier associated with each node, a scheduling frame number for the network, and a priority bias for each node.

## REMARKS

Reconsideration of this application, as amended, is respectfully requested.

The specification has been amended to reflect the correction requested by the Examiner. Claim 1 has been amended to include the limitations of claims 2, 3, 5, 7, and 8 and, as a result, claims 1, 4, 6, and 9-12 are allowable over the prior art of record for the reasons set forth in the Office Action. Claim 13 has been amended to include the limitations of claims 14, and as a result, claims 13 and 15-18 are allowable. Claim 19 has been amended to include the limitations of claims 20 and 22, and as a result, claims 19, 21, 23-25, 28-32, and 41-44 are allowable. Claim 26 has been amended to include the limitations of claims 19 and 20, and as a result, claims 26-27 are allowable. Claim 33 has been amended to include the limitations of claims 19, 20, 28, 29, 30, 31, and 32, and as a result, claims 33-40 are allowable. Claim 45 has been amended to include the limitations of claims 19,20, 21, and 41, and as a result, claim 45 is allowable. Claim 46 has been amended to include the limitations of claims 19, 20, 21, 41, and 42, and as a result, claims 46 and 47 are allowable. Claim 48 has been amended to include the limitations of

claims 19, 20, 21, and 41, and as a result, claim 48 is allowable. Claim 49 has been amended to include the limitations of claims 19, 20, 28, 29, 30, 31, and 32, and as a result, claims 49-51 are allowable. Claim 52 has been amended to include the limitations claims 53 and 54, and as a result, claims 52 and 55-59 are allowable.

If there are any additional charges, please charge them to our Deposit Account No. 02-2666.

Respectfully submitted,

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Date: 1/10, 2002

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## MARKED-UP COPY IN THE SPECIFICATION

On p. 4, line 18, please delete "request".

On p. 4, line 18, after the words "when to send a" please add --clear--.

A marked up version of the paragraph between lines 13 and 20 on page 4 of the specification is provided below. Additions are indicated with "–" and deletions are indicated within "[ ]."

One of the first protocols for wireless networks based on a handshake between sender and receiver was SRMA (split-channel reservation multiple access). F.A. Tobagi & L. Kleinrock, "Packet Switching in Radio Channels: Part III – Polling and (Dynamic) Split-Channel Reservation Multiple Access," IEEE Trans. Comm., Vol. COM-24, No. 8, pp. 832-845 (1976). According to SRMA, the sender of a packet uses ALOHA or CSMA to decide when to send a ~~request~~ clear-to-send (CTS) if it receives the RTS correctly. The CTS tells the sender when to transmit its data packet. Although SRMA was proposed with one or two control channels for the RTS/CTS exchange, the same scheme applies for a single channel.

## MARKED UP COPY OF THE CLAIMS

1. A method, comprising activating a node of a computer network such that the node first attempts to establish contact with other nodes that may exist within the computer network [and, if unsuccessful in doing so then establishes itself as a single node network] by cycling through a set of one or more common channels for communication within the computer network, the node at each channel attempting to establish contact by transmitting a request packet including a code identifying the network thereon and, after transmitting a request packet on one of the common channels, the node listens for a response packet before proceeding to a next one of the common channels, wherein upon receiving a response packet including the code identifying the network first transmitted by the request packet from one of the other nodes, the node enters a synchronization mode and joins the computer network and, if unsuccessful in establishing contact with other nodes, then the node establishes itself as a single node network.

4. (Amended) The method of claim [2] 1 wherein the one or more common channels are wireless communication channels.

6. (Amended) The method of claim [5] 1 wherein the response packet includes a parameter specifying time within the computer network.

9. The method of claim 1 wherein while the node is established as a single node network, the node listens for attempts by further nodes to join a network.

10. The method of claim 9 wherein upon detecting one or more attempts by the further nodes to join a network, the node transmits a response thereto.

11. The method of claim 10 wherein the response includes an indication of time within the single node network.

12. The method of claim 11 wherein the response further includes a network code.

13. (Amended) A method, comprising:

receiving, at a first node of a computer network, an indication of time within the computer network according to a second node of the computer network; [and]

determining whether to adjust the time at the first node according to whether the indication of time received form the second node is younger or older than the time at the first node[.]; and

adjusting the time at the first node if the indication of time received from the second node is older than the time at the first node.

15. The method of claim 14 wherein the indication of time received from the second node is augmented for delays within the computer network before determining whether to adjust time at the first node.

16. The method of claim 15 wherein if the indication of time received from the second node differs from the time at the first node by more than a predetermined threshold amount, the first node determines whether the first node or the second node has priority over the other and adjusts the time at the first node only if the second node has priority.

17. The method of claim 16 wherein the first node first transmits a Transition Request packet before adjusting the time at the first node.

18. The method of claim 17 wherein nodes synchronized with the first node receive the Transition Request packet from the first node and adjust corresponding local times according to a time specified in the Transition Request packet.

19. (Amended) A method, comprising computing a transmission time for a packet from a first node of a computer network according to the identification of the node [and the age of the network] and an indication of the network age up to the start of a current frame within which the packet is to be transmitted and, wherein the computing is performed using a function that provides a varying distribution of results for varying inputs of the identification of the first node and the age of the network, the results ranging from a minimum to a maximum representing a number of transmission slots per frame within which the control packet may be transmitted.

21. (Amended) The method of claim [20] 19 wherein the packet comprises a network control packet.

23. (Amended) The method of claim [22] 19 wherein the function comprises an encryption function.

24. (Amended) The method of claim [22] 19 wherein the function comprises a hash function.

25. The method of claim 24 wherein the hash function comprises the MD5 hash function.

26. (Amended) [The method of claim 20] A method, comprising computing a transmission time for a packet from a first node of a computer network according to the identification of the node and an indication of the network age up to the start of a current frame within which the packet is to be transmitted, wherein the computing is performed using a table of entries of pseudorandom values.

27. The method of claim 26 wherein the pseudorandom values represent transmission slots within the frame within which the control packet may be transmitted.

28. The method of claim 20 further comprising computing, at the first node, transmission times for other nodes of the computer network.

29. The method of claim 28 wherein computing transmission times for the other nodes is performed using unique identifiers for each of the other nodes and the network age.

30. The method of claim 29 wherein computing transmission times for the other nodes is accomplished using a function that is also used for computing the transmission time for the first node.

31. The method of claim 30 wherein the other nodes are all within a two-hop neighborhood of the first node in the computer network.

32. The method of claim 31 wherein the first node resolves contentions for transmission times between itself and any of the other nodes according to a priority determination.

33. (Amended) [The method of claim 32 wherein the priority determination is made using] A method, comprising computing a transmission time for a packet from a first node of a computer network according to the identification of the node and an indication of the network age up to the start of a current frame within which the packet is to be transmitted, further comprising computing, at the first node, transmission times for other nodes that are within a two-hop neighborhood of the first node in the computer network using unique identifiers for each of the other nodes and the network age, wherein computing transmission times for the other nodes is accomplished using a function that is also used for computing the transmission time for the first node, wherein the first node resolves contentions for transmission times between itself and any of the other nodes

according to a priority determination which uses a function that provides a unique output for varying identification and network age inputs.

34. The method of claim 33 wherein the function comprises an encryption algorithm.

35. The method of claim 33 wherein the function comprises a table look-up.

36. The method of claim 33 wherein the priority determination is further made using a priority bias associated with each of the nodes.

37. The method of claim 36 wherein the first node transmits at the transmission time if it is determined to have priority over the other nodes.

38. The method of claim 37 wherein the first node transmits at the transmission time if it further has priority exceeding a priority threshold.

39. The method of claim 33 wherein the first node transmits at the transmission time if it is determined to have priority over the other nodes.

40. The method of claim 39 wherein the first node transmits at the transmission time if it further has priority exceeding a priority threshold.

41. The method of claim 21 wherein the control packet advertises a schedule for a data transmission

42. The method of claim 41 wherein the schedule includes an identification of one or more nodes to receive the data transmission.

43. The method of claim 42 wherein the schedule further includes a data transmission time.

44. The method of claim 43 wherein the schedule further includes a data transmission channel.

45. (Amended) [The method of claim 41 wherein the schedule includes] A method, comprising computing a transmission time for a packet from a first node of a computer network according to the identification of the node and an indication of the network age up to the start of a current frame within which the packet is to be transmitted, wherein the packet comprises a network control packet which advertises a schedule for a data transmission, and the schedule includes a persistence indicator.

46. (Amended) [The method of claim 42 wherein the nodes to receive the data transmission are identified by local identifiers being smaller than network identifiers associated with the nodes.] A method, comprising computing a transmission time for a packet from a first node of a computer network according to the identification of the node and an indication of the network age up to the start of a current frame within which the

packet is to be transmitted, wherein the packet comprises a network control packet which advertises a schedule for a data transmission and the schedule includes an identification of one or more nodes to receive the data transmission, wherein the nodes to receive the data transmission are identified by local identifiers being smaller than network identifiers associated with the nodes.

47. The method of claim 46 wherein the first node transmits a mapping of the local identifiers to the network identifiers within the network.

48. (Amended) [The method of claim 41 wherein the] A method, comprising computing a transmission time for a packet from a first node of a computer network according to the identification of the node and an indication of the network age up to the start of a current frame within which the packet is to be transmitted, wherein the packet comprises a network control packet which advertises a schedule for a data transmission and the network control packet includes acknowledgement information to schedules transmitted by one or more other nodes of the network.

49. (Amended) [The method of claim 32 wherein] A method, comprising computing a transmission time for a packet from a first node of a computer network according to the identification of the node and an indication of the network age up to the start of a current frame within which the packet is to be transmitted, further comprising computing, at the first node, transmission times for other nodes that are within a two-hop neighborhood of the first node in the computer network using unique identifiers for each of the other nodes

and the network age, wherein computing transmission times for the other nodes is accomplished using a function that is also used for computing the transmission time for the first node, wherein the first node resolves contentions for transmission times between itself and any of the other nodes according to a priority determination and the priority determination is made using a table of pseudorandom values.

50. The method of claim 49 wherein the table of pseudorandom values is indexed by a value derived from a media access control layer address of the first node to retrieve an entry corresponding to a first priority determination.

51. The method of claim 50 wherein the first priority determination is checked by logically combining the media access control layer address of the first node with the entry corresponding to the first priority determination to resolve conflicts.

52. (Amended) A method, comprising using a topology-independent scheduling procedure [to determine candidate packet transmission times within a computer network for the transmission of packets therein and a topology-dependent scheduling procedure to avoid collisions in contended time periods] utilizing an age of the network and unique identifiers for each node of the network to determine the candidate packet transmission times within a computer network for each of the nodes therein and a topology-dependent scheduling procedure to avoid collisions in contended time periods, wherein the topology-independent scheduling procedure computes the candidate transmission times

for each of the nodes using a function that provides a varying distribution of outputs for a varying sampling of inputs.

55. The method of claim 54 wherein the function comprises at least one of a hash function, an encryption function or a table look-up operation.

56. The method of claim 54 wherein conflicts for the candidate transmission times for each of the nodes are resolved according to a priority associated with each of the nodes.

57. The method of claim 56 wherein the priority for each of the nodes is determined according to a function that provides a unique output for each set of inputs.

58. The method of claim 57 wherein the function that provides a unique output for each set of inputs comprises at least one of an encryption function, a hash function or a table look-up operation.

59. The method of claim 57 wherein the inputs to the function that provides a unique output for each set of inputs comprise one or more of a unique identifier associated with each node, a scheduling frame number for the network, and a priority bias for each node.